WINTER 2017

WESTERN MICHIGAN UNIVERSITY

W Magazine

‘Good Pet U’

How behavioral science students help save shelter pets

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‘The best story in college football’

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Winter Wonderland at Western!

Dear Friends,

Full of Bronco pride, we all watched the stellar performance of our football team this past season. Recognitions for its victories still come from far and wide, and they are well-deserved. Only one other Football Bowl Subdivision team in the nation stacked up wins to finish with an undefeated regular season.

This group of talented student-athletes, under the guidance of our dedicated coaches, learned from defeats of bygone seasons and put in the necessary hard work to attain their highest goals on the field.

What's more, this is a storyline that plays out in as many ways as there are students at Western Michigan University.

Every day, thousands of students, educated and mentored by professors devoted to their success, also work diligently at academic study to push themselves toward personal and professional goals.

When their studies are complete, credentials achieved, some go on with the knowledge and skills to engineer bridges or to teach children how to read. Others compose great works of literature. Accomplished athletes take abilities honed on our playing fields to the professional realm. Musicians and other artists add more beauty to the world. Bronco entrepreneurs meet market needs. And so much more.

Our graduates are well-prepared to contribute their talents to the wider world, and they do.

As a result, we all win.

Best regards,

John M. Dunn, Ed.D.
President

University obtains rare Latin manuscript for study

A rare 12th-century manuscript that is a copy of a work first produced some 300 years earlier is now at home in the University's Special Collections and Rare Book Department, thanks to a grant from the New York City-based B.H. Breslauer Foundation.

Written in northern France between 831 and 833, the original text was the work of Paschasius Radbertus, a Benedictine abbot later made a saint by Pope Gregory VII. It is an instructional text about the Eucharist for Benedictine monks.

The manuscript's Latin title is "De Corpore et Sanguine Domini," which means "On the Body and Blood of the Lord." The influential writing was widely disseminated during the Middle Ages and was considered groundbreaking and controversial in its argument for the Eucharist transforming into the body and blood of Jesus Christ.

Purchased using both endowed funds for the rare book collection and a $70,000 grant from the Breslauer Foundation, the small 12th-century manuscript is expected to play a major role in graduate and undergraduate teaching and research. ■

Stay informed and offer input about WMU's presidential search

wmich.edu/presidentialsearch

ESPN's College GameDay crew rolled onto campus and into a festive atmosphere in November. President Dunn and Buster even dabbed for the occasion.

Dunn sets out on farewell tour

A season filled with events designed to celebrate the successful tenure of President John M. Dunn is providing the entire WMU community opportunities to say thank you and farewell to the University's eighth president.

Dunn will:

VISIT alumni gatherings in Colorado, Arizona, California, Florida and Washington, D.C.

EMBARK on a Feb. 27 through March 3 Farewell Bus Tour of Michigan that will take him to more than a dozen cities around the state.

BE FETED at an April 7 Miller Auditorium celebration for the campus and community.

Dunn, whose trademarks have been his accessibility and focus on student success, has agreed to a series of activities, including a bus tour, that will put him in close contact with people around the state and nation.

Farewell activities to celebrate the Dunns will include a May gala at the WMU Homer Stryker M.D. School of Medicine; visits to legislators and editorial boards; and a special fundraising effort to benefit four causes of particular interest to the Dunns—the Student Emergency Fund, the Seita Scholars program, the Bronco Marching Band and the University Art Collection.

"President Dunn has built a tremendous legacy on campus, in Kalamazoo and around the state and nation," says Kenneth Miller, chair of the WMU Board of Trustees. "We want members of all the communities we serve to have a chance to play a part in celebrating, with us, the accomplishments that have changed WMU forever and left their mark nationwide."

Miller notes that throughout the coming months, those coordinating the farewell events plan to reach out to alumni, students and others to ensure as many people as possible have an opportunity to participate in one or more of the events and activities. ■

Obare

Chemistry professor is new associate vice president for research

Dr. Sherine O. Obare, professor of chemistry and interim associate dean of WMU's College of Arts and Sciences, has been tapped to become the University's associate vice president for research.

She has a long track record of attracting external funding and collaborating internationally on research efforts that focus on developing novel materials and technologies with environmental applications.

In her various positions at WMU, she also has served as a mentor to postdoctoral fellows, graduate and undergraduate students, and high school and middle school students.

Dr. Daniel M. Litynski, vice president for research, describes Obare as a "seasoned and extraordinarily successful researcher with a strong administrative background who loves to mentor students and others."

A WMU faculty member since 2004, Obare came to the University after completing a two-year Camille and Henry Dreyfus postdoctoral fellowship at Johns Hopkins University. ■

Honors college gets new leader

Dr. Gary H. Bischof, professor and chair of the Department of Family and Consumer Sciences, has been named the new dean of the Lee Honors College.

Bischof

A WMU faculty members since 1999, Bischof taught in the Department of Counselor Education and Counseling Psychology for 13 years before taking the position of interim chair in his current department in 2012. He was named chair in 2014. Both departments are part of the College of Education and Human Development.

His background includes clinical and research experience and publication in a number of counseling and family therapy journals. He has been the advisor and doctoral committee chair for 11 successful doctoral candidates in counselor education.

Bischof replaces Dr. Carla Koretsky, who left the honors college to assume the role of dean of WMU's College of Arts and Sciences in July. In the interim, Jane Baas, associate dean of the honors college and professor of dance, led the college. ■

A 'Musical America' innovator among us

Tom Knific, accomplished music professor and director of WMU's jazz studies program, has been named one of Musical America's Top 30 Professionals for 2016.

Knific

The musical media organization included Knific in its December 2016 publication featuring 30 music professionals it deems innovators.

Knific was saluted as being "a charismatic teacher, composer, group leader and sideman to the greats, from Dave Brubeck and Randy Brecker to Pepe Romero and André Watts."

Musical America also noted his involvement in the International Society of Bassists, serving as past president of the organization, and his master classes, which have taken him all over the world. He has appeared on five continents and made more than 30 recordings and is the recipient of *DownBeat* magazine's Achievement in Jazz Education award.

"I was stunned and delighted to receive this news," Knific says. "Musical America has always been the gold standard aggregator and publication for the music profession. I am particularly glad they cited both my professional and academic efforts." ■

WMU's own top chef medals at 'culinary Olympics'

A chocolate bust of Abraham Lincoln netted a WMU chef one of his two bronze medals from the world's most elite culinary competition.

Chef Thomas Giles, manager of culinary operations for WMU Dining Services, earned the honors during the 2016 Internationale Kochkunst Ausstellung—International Culinary Exhibition—in October. Commonly known as the IKA/culinary Olympics, the competition is staged every four years in Erfurt, Germany.

Thomas Giles is pictured in the middle.

Giles earned a bronze medal in the Culinary Artistry Category for the chocolate carving of Lincoln and a bronze in the Culinary Art Category for his five-course tasting menu.

Some 2,000 chefs from more than 50 countries participated in the competition.

"I've dreamed of doing the competition for 30 years. It's the pinnacle of what you do, and especially if you medal, it's so rewarding," Giles said. ■

A storied season

The Broncos had the best story going in all of college football this past season, a Detroit sports columnist opined after the team appeared at the Cotton Bowl before a crowd of nearly 60,000 at AT&T Stadium.

That assertion is indisputable to the Bronco nation, which saw its football team achieve 13 straight wins in a historic season that included clinching the Mid-American Conference Championship before facing a top-10 opponent in one of the so-called New Year's Six bowl games.

While the 15th-ranked Broncos may have lost by 8 points in a 24-16 result against the eighth-ranked Wisconsin Badgers in Arlington, Texas, Jan. 2, they experienced a season full of gains built on tremendous years-long growth.

Celebrated coach P.J. Fleck in turn lauded Bronco players, particularly calling out the seniors who saw the squad transformed from a team that secured just one win over an entire season to a team that went undefeated in all of its regular-season games.

"They took one of the worst college football teams in the country, with all due respect, and made it eight points away from winning a Cotton Bowl Championship," said Fleck who has since moved on to lead the University of Minnesota football program.

A season of firsts

Individual and team achievements were legion during the season.

The Broncos achieved more than 70 program firsts, including beating two Big Ten teams and being nationally ranked in the *Associated Press* Top 25, *USA Today* Amway Coaches Poll and College Football Playoff ranking.

A record seven Bronco football players were named to the 2016 MAC Distinguished Scholar Athlete team, including quarterback Zach Terrell who also received the William Campbell Trophy, an award known as the "academic Heisman."

"They took one of the worst college football teams in the country, with all due respect, and made it eight points away from winning a Cotton Bowl Championship."

—P.J. Fleck

Wide receiver Corey Davis earned multiple all-America honors, including by the *Associated Press, USA Today, Sports Illustrated, Sporting News* and Walter Camp Football Foundation.

Davis and offensive lineman Taylor Moton were the first Broncos in program history to be named to the Football Writers Association of America All-America Team.

Fans responded to the unprecedented successes by setting a home attendance record of more than 143,000 at Waldo Stadium and a MAC Championship attendance record of more than 45,000 at Ford Field in Detroit. And, reportedly, about half of the people cheering in the stadium at the Cotton Bowl were Bronco fans.

As wins mounted through the year, the nation took notice. ESPN College GameDay came to campus in November, making WMU the second MAC school ever to be featured as a host of the Emmy-winning pregame show.

The season of triumph has set the football program up for future success.

Tim Lester, the team's new head coach and a star Bronco quarterback in the late 1990s, said WMU's program has a "phenomenal culture" that he intends to continue advancing.

During his introductory press conference Jan. 14, Lester said, "The secret to winning is not coaching, it's culture. I let (Bronco football players) know that coaches can come and go, but culture wins.

"We're going to embrace all the things we've done… But we are going to definitely put all our energy into building the future."

Lester comes to WMU with some 13 years of coaching experience, most recently as Purdue University's quarterbacks coach. ■

A cat walking on a leash is not something you see every day. But WMU psychology students prove that cats are absolutely trainable. Walking harnessed was still new for this cat at a county stray-animal shelter. Bethany Hintze, a graduate student who runs the training program, helped the kitty show off.

A team of behavioral science students working in an animal shelter were at first perplexed when one of their normally compliant canine pupils became a barker around certain people.

Eventually, the students deduced that the dog was afraid of hats—and anybody wearing one. The dog was experiencing needless stress, and its fear reaction could have caused an interested but innocently hat-wearing adopter to pass up on what might have seemed like a pugnacious pup.

The students' solution? A kind of encounter therapy that involved associating hats and hat wearers with treats the dog liked. Over time, the dog learned that hats were no threat; not long thereafter, it went to a home.

Behind the scenes at some Kalamazoo-area animal shelters, you'll find WMU psychology students teaching dogs and cats to walk calmly on a leash, to come when called and other skills. They also try to resolve problem behaviors the shelter animals may exhibit.

The hope is to increase the chances these would-be pets will be adopted.

In some cases, obedience training and behavior management has saved animal lives, as a well-behaved pet is a more adoptable one.

And even at no-kill shelters, the students' interventions may shorten an animal's otherwise lengthier stay.

Hundreds of animals helped

Each year, psychology students majoring in behavioral science train hundreds of dogs at Kalamazoo County Animal Services and Enforcement as well as at the SPCA of Southwest Michigan as part of WMU's Applied Animal Behavior Practicum. More than 1,800 shelter dogs have gone through at least one training session since 2011. And, just this past November, students began working with cats, too.

This semester-long elective field experience is intended to take the behavioral science theory students learn by book and by lecture to an applied setting.

The practicum also is helping take on a challenge that exists in many communities—getting their homeless companion animal population into homes.

"It really is a win-win-win relationship for all parties," says Stacy Engebretson, a doctoral student who ran the program for five years.

> **"The students gain the ability to see how learning and conditioning theory works in real-world applications."**
>
> **— Stacy Engebretson, a doctoral student who ran the program for five years**

"The students gain the ability to see how learning and conditioning theory works in real-world applications, the satisfaction that they are making a life better, and polishing skills that will stay with them after the class has concluded…The dogs are given some TLC, treats, the opportunity to get physical and mental stimulation, and to show off their unique charm."

And the shelter staff members say they appreciate having a team of students working intensively every week to socialize the animals they house.

Steve Lawrence, Kalamazoo County's animal shelter director, was initially uncertain about what role psychology could play with animals at the facility.

"It was kind of a surprise to me. It's more animal behavior, but I see how this fits into psychology. It has been very beneficial," Lawrence says. "It does make a difference in some of these animals getting out of here."

Accentuating the positive

Though the idea of a psychologist working with animals may give a lay person pause at first, the behavioral science branch of psychology holds that its tenets apply to all creatures.

"Its principles actually were first developed with laboratory research with nonhumans," explains Dr. Cindy Pietras, associate professor of psychology and supervisor of the practicum.

Pioneering behaviorist B.F. Skinner started out researching principles of learning by studying rats and pigeons; those principles were later studied in humans in laboratory and field settings.

At the shelters, WMU students use positive reinforcement techniques to train animals to exhibit particular preferred behaviors—walking on a leash or sitting still when directed—and, in some cases, to overcome unwanted ones—incessant barking or jumping on people. So that students are handling would-be pets that are safe for training, the animals are screened for aggression before the undergraduates begin working with them.

For their feline pupils, the students have discovered that petting is the most powerful reinforcement. And most of the dogs are motivated by food.

"The science of modifying behavior is that future responses are based on the consequences of past behaviors," Engebretson explains.

"At its core, if you give a dog a treat after he sits, the likelihood of him sitting in the future will be increased.

"They reinforce proper behaviors and discourage—by denying treats or managing the maintaining consequences—inappropriate behaviors. There is no controversial dominance training or aversive training or pack theory employed."

Animal and human pupils

Each semester, four to 10 psychology majors take part in this practicum to satisfy a portion of their compulsory fieldwork credits.

Some of them aspire to work with animals professionally as trainers or in clinical care, but they are not required to have prior experience training pets. The graduate students who currently lead the practicum, Bethany Hintze and Courtney Hockenberry, are looking for people who enjoy animals and are willing to work resiliently to practice what they've learned in coursework.

As each animal is unique, with different learning curves, personalities and quirks, students are challenged to think on their feet, problem solve and, above all, keep at it.

"It's hard to get perfect behavior the first time you try to train it (the preferred behavior)," Pietras says. "So, we have to train it gradually, and a lot of the training is slow; it involves this process we call shaping, which means you have to build up the behavior across a training period.

Between 2011 and 2016,

more than 100 STUDENTS trained 100S OF DOGS.

On Facebook, see adoptable animals and videos of training sessions by searching "WMU applied animal behavior practicum."

"It's a gradual shaping process of teaching them appropriate behavior."

Trainers first ask a little of an animal, something it easily can master, and then they challenge the dog or cat to do a little more and a little more, "reinforcing" each incremental achievement.

Dogs that go through the entire regimen before being adopted learn to sit, lie down, walk calmly while leashed, wait at doors, leave objects alone when directed and to come when called. Cats are trained in some of these basic skills as well, including the "come" and "stay" commands.

Senior Brendon Stahel, one of the newer student trainers, says it's been rewarding to witness animals finally picking up a skill or overcoming a bad habit.

"A lot of these dogs have been hurt or neglected. But even though they've had a rough or tragic deal, they are still capable of mastering these skills.

"When somebody says, 'Wow, that's neat,' and then they want to take the animal out, it warms my heart just knowing this dog might be able to go to a home." ■

By the Numbers—animals that received at least one training session

Kalamazoo County Animal Services and Enforcement
Adopted: 657 (50.2%)
Sent to rescue facility: 280 (21.4%)
*Euthanized: 332 (25.4%)
Redeemed by owner: 33 (2.5%)
Unknown: 7 (.5%)
Total: 1,309
Average training sessions per dog: 9.49

SPCA of Southwest Michigan
Adopted: 515 (96.26%)
Transferred to another rescue: 16 (2.99%)
Deceased: (health or dangerous behavior developed): 4 (.75%)
Total: 535
Average training sessions per dog: 11.36

*For a variety of reasons, including dangerous behavior and poor health, some of the animals at the county's shelter are euthanized.

Good Dog U—and cats, too

How does obedience training through positive reinforcement work? Teaching a dog to sit is an easily explained example that Bethany Hintze, one of the graduate students who currently runs the Applied Animal Behavior Practicum, likes to use.

Using a food treat as a lure, the sit command begins with a hand gesture, Hintze explains.

"Many people come into the shelter and when the dog doesn't sit, they push their butt down. We don't do that. We consider it an extra step that isn't necessary. So, instead, we start by taking the treat up over their nose and arcing it back so they have to look back. Eventually, that causes them to sit down."

Guided by the treat held aloft, a dog learns the sitting motion step-by-step and gets rewarded, or "reinforced," with a treat for each successful step in the motion.

For this and every other skill, the student trainers go through the process repeatedly until the animal masters it—or is adopted out.

Training shelter cats is a new endeavor for the practicum. Unlike most of their dog pupils, however, cats tend to be motivated—reinforced—by being petted versus receiving food during the training regimen. And, compared to the dogs, the cats respond better when trainers shape behavior in smaller steps, says Dr. Cindy Pietras, associate professor of psychology and practicum supervisor.

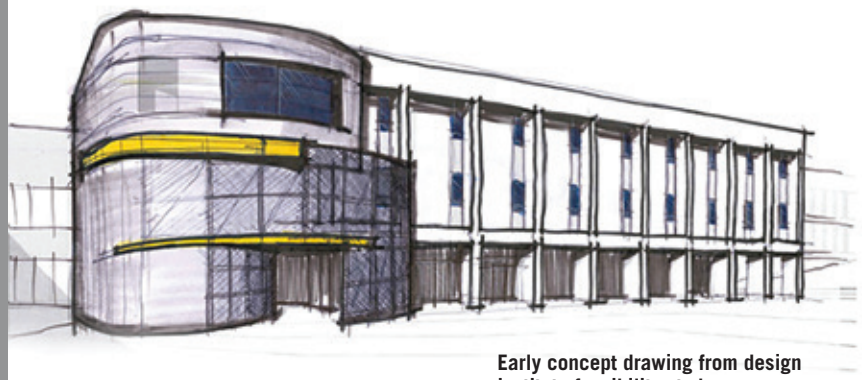
Hintze and Courtney Hockenberry, the other graduate student leader, would eventually like to expand their training skills to pet cats and dogs to help pet owners change undesirable behaviors like aggression in dogs, or, in cats, inappropriate litter use or scratching.

"Changing problem behaviors may help prevent animals from being relinquished to animal shelters," Pietras says.

For anyone interested in learning how to use positive reinforcement in animal training, Pietras recommends the book "Don't Shoot the Dog!" by Karen Pryor. ■

"To create the perfectly modern three-legged stool that balances artist aesthetics, elegant engineering and a business-minded entrepreneurial spirit is challenging, but bringing these disciplines together into harmony to improve the interaction between humans and technology, is the ultimate goal."

College of Fine Arts Dean Daniel Guyette



Early concept drawing from design institute feasibility study

Empowering the future of product design

A Kalamazoo couple with a passion for the arts and a history of executive leadership in the community has given $3 million to support the creation of a new product design and innovation facility at the University.

The gift from James and Lois Richmond will make possible the new interdisciplinary entity that will be named for them. The Richmond Product Design and Innovation Institute will combine the resources of WMU's colleges of Fine Arts and Engineering and Applied Sciences as well as the Haworth College of Business.

The entity will house a new bachelor of fine arts degree program in product design. It also will serve as a base around which key Southwest Michigan corporate partners can focus their product design and development needs.

"WMU is uniquely positioned to prepare the next generation of product designers," says President John M. Dunn. "Jim and Lois Richmond, through their generosity, have made an investment in this region's future by helping us create an innovative industrial design program that will combine form, function and manufacturing. This is the latest chapter in their long, thoughtful commitment to strengthening the ties that bind our campus and our community."

The Richmond gift will be used for renovations to 28,000 square feet on the first and third floors of Kohrman Hall. The renovations will include studios, presentation spaces and laboratories dedicated to innovation, fabrication, rapid prototyping, 3D printing, and woodworking and metalworking. Architectural work is already underway and the goal is to begin construction in spring 2017 and have the facility open in summer 2018.

"We're so pleased to see the way the University, community and local corporations are coming together to build a program that fully leverages Kalamazoo's strengths in the arts and innovation," says Jim Richmond. "This program will be a leader in the growing fields of design and innovation nationally, and will prepare WMU students for these important careers for generations to come."

Jim and Lois Richmond are both WMU graduates. Lois is a former assistant vice president of administration at Bronson Methodist Hospital. Jim was an executive with Stryker Corp., where he served as senior vice president of global marketing and development prior to his retirement in 1988. He has since served as a special consultant for Stryker, and came out of retirement briefly in 1995 to assist with reorganization of a major division in the company.

Jim Richmond is a well-known Kalamazoo-area artist. His medium is scrap metal, found objects and wood gathered from unlikely places, such as factories and farm auctions. The Richmonds have a longtime association with the Kalamazoo Institute of Arts, where Jim has served on the board of directors and steering committee for the KIA school. Their commitment to the arts was celebrated nearly a decade ago with the naming of WMU's Richmond Center for Visual Arts, home to the Frostic School of Art.

College of Fine Arts Dean Daniel Guyette says the timing of the Richmond gift and industry support as well as the strengths of the Kalamazoo area will set the design and innovation program on a path to success.

"Kalamazoo possesses ideal qualifications and an area market that will maximize the input of the industrial design community and allow us to connect our grads with world-class regional employers," says Guyette, who has been working on the initiative for the past three years.

Southwest Michigan companies already involved and in support of the effort include Whirlpool, Tekna, Newell Brands, Stryker, FabriKal, Landscape Forms and Eaton. Bob Brown and the Monroe-Brown Foundation provided key initial funding and area economic development agency Southwest Michigan First is actively involved as well. ■

What's
the
weather
like
on
Saturn?

Researcher who models off-world storms earns NASA fellowship

Figuring out how the weather on Earth works is difficult enough. Now try deciphering atmospheric processes hundreds of millions of miles away on Jupiter, Saturn, Uranus and Neptune—the solar system's giant gas planets.

Shawn R. Brueshaber, a doctoral candidate, is trying to do just this, and his efforts earned him a NASA Earth and Space Science Fellowship. Brueshaber is one of only 28 applicants awarded a $30,000 award for 2016-17 from the fellowship's planetary science research division.

He's investigating polar vortices—large patches of air circulating near the pole. These circulations are sometimes bounded by a jet stream and tend to change shape over time, just as the polar vortex did on Earth in January 2014 when it plunged a broad area of Canada and the United States into a bitter deep freeze.

Receiving the fellowship is a coup for the veteran engineer, who's taught thermodynamics, materials science and graduate-level fluid mechanics at WMU and holds a bachelor's degree in aerospace engineering from Embry-Riddle Aeronautical University and a master's degree in mechanical engineering from WMU.

During the past two decades, Brueshaber has worked for several Michigan companies in a variety of roles—none of them related to weather or astronomy. But he's been fascinated by these subjects since childhood, and while gaining professional expertise in fluid mechanics, computational software and other traditional aspects of engineering, he kept studying and reading about them.

"I decided that after I finished the coursework for my Doctor of Philosophy in mechanical engineering, I wanted to study something of serious interest to me," he says. "My engineering background and self-study of weather and astronomy were good fits for a research topic using computational methods."

So, for his doctoral dissertation titled "Accumulation of Polar Vorticity in a Forced-Turbulence 3D Model," Brueshaber chose to investigate polar vortices on the solar system's gas planets.

Armed with his NASA fellowship funding, Brueshaber is continuing to delve into what influences a polar vortex. The research fits with NASA's interest in expanding both basic and applied science about atmospheric phenomena on Earth and all other planets.

Off-world weather

Brueshaber says polar vortices are seen on Earth, Mars and Venus, our terrestrial worlds, as well as Saturn's moon Titan, which is the only moon in the solar system with a thick atmosphere. Except for Venus, they're seasonal features that come in the fall and winter and disappear in the spring. Polar vortices are harder to understand on Jupiter, Saturn, Uranus and Neptune, which he says are really just big balls of fluids.

"Turbulence is one of those problems in physics, engineering and meteorology that doesn't have a comprehensive theory yet. We can make some remarkable and accurate predictions of atmospheric motion and fluid motion in engineering devices such as pumps, airplane wings and heat exchangers, but we're still a bit in the dark on a comprehensive understanding," Brueshaber says.

"Turbulence plays very much into the mechanisms behind the formation of vortices, storms and jet streams. By studying the giant planets, we learn about weather and climate without a lot of complicating factors. There are no mountains, no oceans, no land or ice caps. In some ways they're simpler than our world."

Still, Brueshaber says, that doesn't mean gas planets are well understood. For instance, scientists learned this past summer that Jupiter doesn't have a polar vortex at all. Saturn, on the other hand, has a vortex at both the north and south poles but unlike any others known to date, these vortices remain even when the seasons change. Meanwhile, Neptune has a vortex at its south pole, but it changes shape for unknown reasons.

Researching the differences

To figure out what's causing such differences, Brueshaber is using numerical simulations that take into account key variables. By modeling their effect, he hopes to gain a better understanding of the fluid-dynamic characteristics of polar vortices and determine which variables favor and suppress vortices.

"I have a hypothesis of why these storms exist, and my work to date shows similar results to a previous researcher who predicted that Jupiter wouldn't have a polar vortex," he says.

Brueshaber is doing a preliminary set of computational experiments that examines the influence of a planet's size and rotational speed, strength of small-scale storms, and spin direction of small-scale storms. Do these variables favor emergence of a polar vortex and if so, how big and strong is the vortex?

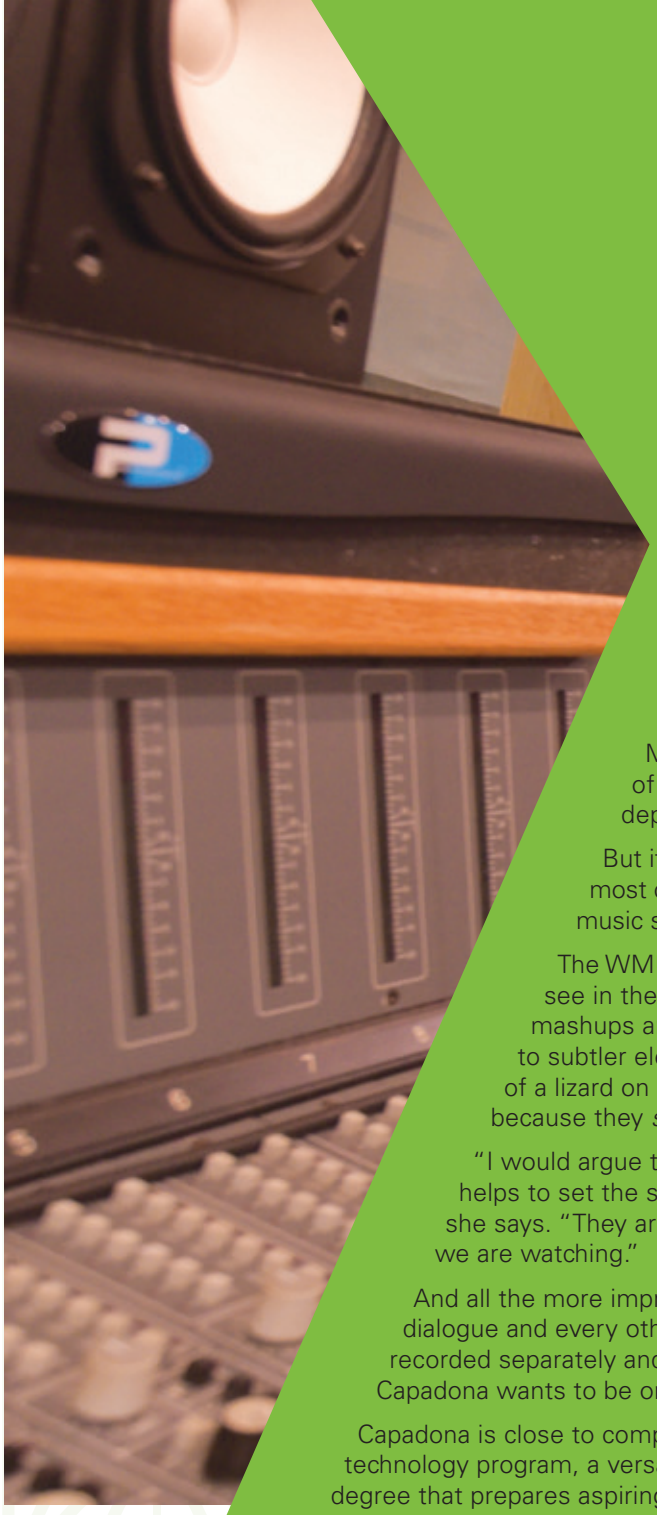
He'll start the next phase of his work this spring, when he looks at how the temperature at different depths of an atmosphere affect any polar vortex.

"My engineering background and self-study of weather and astronomy were good fits for a research topic using computational methods."

—Brueshaber

"If we can close the gaps of our understanding of turbulence in general, we may not only increase our predictive power of Earth's climate and weather, we might even make some breakthroughs that could help us design better fluid mechanic devices and help develop fusion power," he says.

Fusion, he notes, powers the sun and is a source of green energy. ■



Sound Talent

Meet the next maestros of multimedia arts

Critics heaped praise on the latest "Mad Max" film, extolling it as a visceral joyride of "automotive mayhem" gorgeously depicted in a dystopian desert landscape.

But it was the movie's soundscape that most captivated multimedia arts technology-music student Gianna Capadona.

The WMU senior contends that what you see in the film—from the metal-on-metal mashups and feel-it-in-your chest explosions to subtler elements like the whispery skitter of a lizard on sand—seem all the more real because they *sound* authentic.

"I would argue that the sound design of the film helps to set the scene even more than the visuals do," she says. "They are the reason that we believe in what we are watching."

And all the more impressive? Film audio—the music, the dialogue and every other sound—is added post production, recorded separately and layered in by the kind of professional Capadona wants to be one day.

Capadona is close to completing her studies in the multimedia arts technology program, a versatile and relatively new School of Music degree that prepares aspiring audio artists for a wide-range of careers in high-tech music and sound production.

These are the up-and-comers who will engineer, amplify or even create the sound and music you enjoy live, on albums, in cinema, television programming, video games, computer software and in other forms of media.

The creation of the program speaks to the ever-expanding role digital media plays in society, and to the ways technology is advancing the music industry.

"Most people in the United States are just inundated with (digital media) all the time—and people are designing all that media," says Dr. Christopher Biggs, assistant professor of music and one of the architects of the MAT program.

"Somebody created and managed all the premade ring tones that are on your phone. Everything you see with video, online or elsewhere, that is accompanied with sound, somebody had to design that sound."

MAT students Caesar Ortiz (foreground) and Alex Tobin often spend hours in the studio creating and honing projects.

Audio Artists

Established in 2014, MAT was designed to open up career avenues for people who are interested in music and sound production, but who have not been on the traditional music-student path.

The curriculum includes coursework in music theory, appreciation and performance, but students aren't required to be proficient performance artists. Their studies revolve around five foundational pillars: audio engineering, generative audio technology used in commercials and video games, live sound reinforcement for concerts and shows, computer programming and performance with technology.

The integration of digital technologies "into the arts is changing the landscape for arts and human culture, and getting to teach people that right now is very exciting."

—Dr. Christopher Biggs, assistant professor of music and MAT program co-founder

The approach has generated lots of interest. Since its inception, MAT, which is selective and requires a successful audition for entry, has consistently attracted three to four times as many applicants as there are slots.

Johnson

And as its creators envisioned, the program is attracting a diverse pool of talent, including musicians, amateur computer programmers, filmmakers, audiophiles or some combination thereof.

"We have students who are interested in doing sound design that goes with video. We have students who want to be the classic sound engineer in a recording studio, and then we have students who are doing electronic dance music," says Dr. Richard Johnson, assistant professor of music.

Musician Caesar E. Ortiz thinks he'll have his hands in various kinds of multimedia arts as a future professional, and he embraces the program's broad approach.

"You don't just focus on one thing here. There are many different options in this program to go out in the real world and work with," says Ortiz, who also plays the drums, the guitar, raps and has collaborated with many other School of Music students on projects.

"I'm interested in producing music for film, or even sound design for video games or film. I would love to do everything."

Taking a liberal arts approach, program creators want students prepared for a

variety of skills in multimedia arts, Biggs says, and that reflects the world graduates will be entering.

Past generations may have specialized in just audio, just video or just computers, but that kind of skill segregation is increasingly outmoded.

"The integration of all these technologies into the arts is changing the landscape for arts and human culture, and getting to teach people that right now is very exciting," Biggs says.

One of the program's first graduates, Zach Hummel, says MAT taps into a generation of people who have been multimedia content creators from very early ages.

"Free or cheap production software and a laptop is all that one needs to compose and produce complete musical works. Because of this, we're seeing a lot more students now than even a decade ago who are learning the basics of music technology and production before they even get to college," says Hummel, who first studied computer science at WMU and switched to MAT when the program was launched.

"The MAT program is the perfect place for students like this to expand their knowledge base into a professionally viable skill set."

MAT grads

Not only was Hummel one of the first to complete the program—the inaugural graduating class finished the degree last April—he was one of the first to learn that a music degree focused on audio engineering and technology was under development.

"I was already studying audio engineering and music technology with a focus on application when the MAT program was introduced," he says.

"It was a wonderful transition for me, since all of my widely dispersed studies in audio engineering and computer science came together under one integrated banner."

Now a graduate, Hummel is continuing to work in live sound reinforcement and studio recording. Last summer, he toured with WMU's Gold Company and with MNOE, an orchestral pop ensemble.

Another MAT grad, Garrett Gagnon started out majoring in mechanical engineering. But music always held its sway. He has played music since he was 4 and carried that interest into high school. After coming to WMU, he joined the Collegiate Singers choral ensemble.

"By the end of my freshman year, singing in the choir, I just couldn't stay away from it," Gagnon says. He was accepted into the School of Music and studied voice for a year. His junior year, the MAT program was announced and he found he could switch majors and still graduate on time.

"I guess this was a good place for me to finally end up," he says, "given my involvement in music being a vocal performance major. But I wasn't interested in ending up being an opera singer. It really seemed like the perfect end place for me."

Today, Gagnon works for Overneath Creative Collective, a multimedia production company in Kalamazoo. He also freelances, and the School of Music tapped him to teach an electronic music techniques course. ■

WMU Musicians

Live at the Xerox Rochester International Jazz Festival

Laura Dubin Trio

School of Music alumna and jazz pianist Laura Dubin has a third album out. Released in October, the Laura Dubin Trio's "Live at the Xerox Rochester International Jazz Festival" is a two-disc set recorded last summer at the acclaimed jazz fest in Rochester, New York, Dubin's hometown. The set contains original compositions and jazz standards, as well as classical pieces arranged for jazz trio. The *Democrat and Chronicle* reported that Dubin "… goes all out, amply demonstrating strong versatility, with ability in a wide range of styles—from hard bop to gentle lyricism to stride piano to classical competence." The set can be purchased and previewed at lauradubin.com. Dubin, a student of the late music professor Dr. Steve Zegree, graduated with a Bachelor of Music degree in 2011. While at WMU, she was the pianist and bandleader for Gold Company, the University's much-celebrated vocal jazz group. ■

Fantasía

Dr. Martha Councell-Vargas
associate professor of flute

"Fantasía: Solo Flute Works of the American Continent," is the latest CD from Dr. Martha Councell-Vargas, an associate professor of flute in the School of Music. An accomplished solo and chamber flutist, Councell-Vargas has performed across the Americas, as well as in Europe and China. Her "Fantasía" features music with origins in Mexico, Peru, the United States, Uruguay and Venezuela. In 2016, classical music magazine *Gramophone* described Councell-Vargas' artistry on the CD as evocative, absorbing, musically profound and powerfully rhythmic. Released on the Blue Griffin label, the CD can be found at bluegriffin.com. Councell-Vargas has served on the School of Music faculty for about 7 years. ■

Alternations

Coalescence Percussion Duo

"Alternations" is the newest CD by the Coalescence Percussion Duo, a musical pairing comprised of Judy Moonert, professor of music, and Greg Secor, a 1985 graduate of the WMU School of Music and director of the percussion program at Grand Valley State University. The duo's latest CD was recorded and mixed at the Western Sound Studio and supported by WMU's Faculty Research and Creative Activities Award. Percussion colleague Christopher Deane of the University of North Texas College of Music described the work, writing that, "Most, if not all, aspects of the composition are guided by the concept of alternating elements including those of one sound or timbre to another, of contrasting resonances, of one player to another, of one phrase to another, the order of many events… The aesthetic of this music can perhaps be judged as having a nostalgic link to an earlier era of percussion music." Find "Alternations" at coalescencepercussionduo.com. ■

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SCENE ON CAMPUS

The WMU Bronco football team charged into and achieved a history-making 13-0 regular season. Program leaders plan to push for continued success. Onward.

WMU's Living Learning Communities **boost** student **grades, retention** and **unity**

Aspen Jenkins tried to fit in, but nothing he did seemed to work.

It was the fall of 2015, and Jenkins, who is transitioning and identifies as a male, was housed in Draper Hall, an all-male residence hall. It turned out to be an experience that often spiked his anxiety.

"I thought, since I'm a dude now, I'm going to go all the way. I tried acting really masculine, to be 'one of the guys,' you know," he says. "But it just felt awkward and unnatural. In the end, I kind of became secluded. I didn't engage with many people, didn't participate in activities."

Now Jenkins, a 19-year-old sophomore from Detroit majoring in creative writing, has found a home away from home—that actually feels like one.

He is one of 16 residents living in Spectrum House, the University's newest Living Learning Community, or LLC, occupying an entire floor in Britton Hall and created this fall "to be an empowering, inclusive and supportive environment where students of all gender identities and sexual orientations, including or inclusive of allies, can live and learn together."

There, a dynamic mix of LGBTQA students are offered housing in single and double rooms with no sex or gender designation and are encouraged to participate in planned activities, including Safe on Campus training, Fab Fest, discussions on gender identity and attending events planned by LGBT Student Services and other student organizations.

Now Jenkins studies with floor mates, has a large group of supportive friends and a new outlook on college life. His grades have even improved, he says.

"This year, I am comfortable in my own skin," says Jenkins. "I don't have to worry about having to be looked at in a weird way, or feel that awkward tension. It's nice to know I can walk down the hall and talk about anything. I'm just here, living and being able to breathe."

Live together, learn together, succeed

Says Laura Darrah, assistant director of Residence Life, "I have no doubt this community will grow at an exponential rate. Spectrum House is an example of the University being continually responsive to student needs."

It took almost three years of planning, a collaborative effort between the University's LGBT Student Services office, Residence Life and students, whose idea it was to form what would eventually become Spectrum House.

Spectrum House might be new, but the University's LLC housing format is anything but.

Launched in 2005, WMU boasts 16 diverse LLCs representing one of three categories—academic, interest-based and honors-based—meant to provide students with support, a seamless transition

With its homey fireplace, Mugshots is a cozy gathering place for students in the Britton/Hadley Residence Hall.

Darrah

> "There's an intentionality behind the LLC concept. It's the idea that giving like-minded students the option to live close to one another engages them more in the many facets of college life—social, academic and personal growth."
>
> —Laura Darrah, assistant director of Residence Life

to higher education and high satisfaction with the college experience. Examples include the Aviation House, Sustainability Community and Transfer Student Community, just to name a few.

"There's an intentionality behind the LLC concept," Darrah says. "It's the idea that giving like-minded students the option to live close to one another engages them more in the many facets of college life —social, academic and personal growth."

The concept is working, and Darrah has the data to prove it.

Based on data collected from the fall 2014 semester, students who lived in an honors or academic-based LLC had a grade point average that was 0.28 points higher than students who lived in non-LLC residence halls.

The LLC format seems to keep students interested in continuing their studies at the University as well. Darrah's office compared retention rates among first-year engineering students who lived in the Engineering House LLC with the College of Engineering and Applied Sciences as a whole for the 2010-11 academic year. There was a nearly 7 percent higher retention rate between the freshman and sophomore years, as well as sophomore to junior years, for those who lived in the LLC.

Alcohol consumption seen in first-year LLC residents is also lower than what is seen in non-LLC first-year counterparts, which mirrors a nationwide trend, Darrah says.

"Students (in LLCs) tell us there is a greater satisfaction in the transition to college and less effort to build relationships," she says. "With on-site computer labs, tutoring, practice rooms and study groups, the LLCs set students up to succeed right where they live."

Junior Eli Page, middle, is the resident assistant for Spectrum House. The RA's room often becomes a hangout spot, including for sophomore Aidan McLogan, far left, and Theodore Wampuszyc, right. The friendly feline is a therapy cat for a resident not pictured.

Campus 'uncles and aunts'

Charlee Nichols, 20, has seen that success up close.

A junior from Standish who is majoring in accountancy, she lived in the Business Community in Harrison Hall— close to the Haworth College of Business—her freshman year, before returning to serve as a Learning Community Assistant—LCA—a kind of on-site mentor, advisor and learning community organizer who helps develop programming that furthers the mission of a particular LLC.

"A traditional resident assistant is kind of like a mom or a dad. An LCA is like an uncle or aunt," she says.

"It's given me a lot of leadership experience, helping residents with their classes, tutoring and, putting together activities where they can get together and help each other out. The students here want to be social, but they want to get their work done."

That's made a lot easier at her LLC, she says. For instance, located in the Business Community LLC is the Kellogg Lounge and Consumers Spot, study rooms and lounges sponsored by the two Michigan companies that serve as places to get work completed and are also used by the firms to host recruitment fairs in the fall and spring for business students interested in internships and employment with either one.

"It's really convenient," Nichols says. "A lot of students don't want to head to main campus to study. They want to study close to home."

Of course, being close to many like-minded friends has its non-academic perks, too.

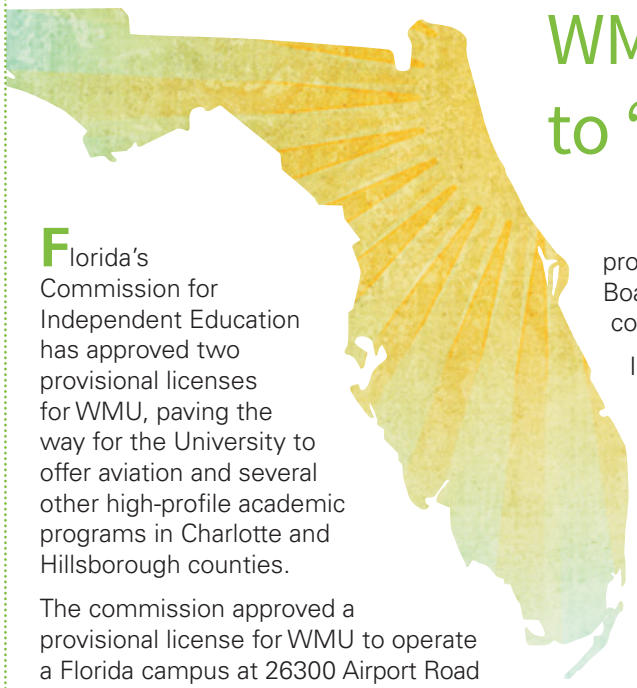
"I'm shy, but when I came here, I just got a bunch of instant friends," she says. "Each year, my friend group got bigger. We create a real community here."

Triston Cornemann knows exactly what Nichols means.

A 20-year-old junior from Dallas, Cornemann, who identifies as gender variant, lives in Spectrum House and has become good friends with Jenkins. Cornemann says the camaraderie they feel with their fellow residents helps keep them focused, engaged and able to more fully appreciate the college experience—all in an environment that is secure. The junior was one of the students who came up with the idea for the LLC.

"I just like meeting trans people," says Cornemann, who is majoring in gender and women's studies.

"I guess the main goal is that we would get to a place where a Spectrum House is not needed, where LGBTQ people are accepted by everyone. But we are not there yet. We are at risk of danger. But I 'stay woke.' I stay close to my friends here. I deserve a place to feel safe, and at Spectrum, I am." ■



WMU academic programs to 'takeoff' in Florida

Florida's Commission for Independent Education has approved two provisional licenses for WMU, paving the way for the University to offer aviation and several other high-profile academic programs in Charlotte and Hillsborough counties.

The commission approved a provisional license for WMU to operate a Florida campus at 26300 Airport Road in Punta Gorda. A second provisional license will allow the University to operate a campus at 9445 Camden Field Parkway in Riverview. The Riverview location already is home to the WMU Cooley Law School, which is affiliated with the University.

The license approvals provide a green light for WMU, Charlotte County, the Punta Gorda Airport and Florida SouthWestern State College to move forward with plans to launch pilot training and aviation maintenance technology programs—each leading to a bachelor's degree. Discussions on that initiative have been underway since 2014.

"This is the start of a fantastic future and a wonderful partnership between Western Michigan University and the communities of southwest Florida," said Bill Truex, chairman of the Charlotte County Board of Commissioners, after hearing the news. "I've been so impressed, and it has been such a pleasure to work with the WMU professional staff, administration and Board of Trustees. They are all truly committed to this initiative."

In addition to aviation, the two provisional licenses make it possible for a number of other WMU graduate and undergraduate programs to be offered. Included on the list authorized for each site are several from WMU's nationally recognized health and human services disciplines, which could grow quickly through new research opportunities and enhanced clinical capacity.

Other in-demand fields would be offered as well. Degree programs in physician assistant and interdisciplinary health services could be offered through the Punta Gorda campus, for instance, while degree programs in vision rehabilitation therapy and engineering management are potential offerings in Riverview.

"This is an exciting project that will allow us to work with our Florida partners to provide the strategic resources that will make an enormous impact on this region."

—Dr. Dawn Gaymer, WMU associate provost for Extended University Programs

According to University officials, there is a significant match between the communities' needs and interests and the University's particular areas of nationally recognized academic expertise. The lure of that match was enhanced by the fact that the area is already home to a large population of WMU alumni.

"The more we looked at this area, the more we became aware of the kind of synergy that will make this a strong and long-lasting partnership," says WMU President John M. Dunn. "Our alumni and University supporters are thrilled that WMU will become an economic and cultural force in the area, and we've been pleased with the foresight and commitment to economic development that local officials have exhibited throughout the process."

Final approval for WMU program offerings must come from the Higher Learning Commission, which is the University's accreditation body. Once such approvals are obtained, WMU and its Florida partners in the aviation effort will work out final details for those degree programs, and the University will move forward with additional programs as the populations' needs and interests dictate.

"This is an exciting project that will allow us to work with our Florida partners to provide the strategic resources that will make an enormous impact on this region," says Dr. Dawn Gaymer, WMU associate provost for Extended University Programs.

"WMU has great depth and breadth of research and academic expertise, and we've all been very thoughtful about selecting programs to bring to the area, letting data from market research and industry forecasting drive decisions about workforce development."

Aviation and health care are two industries with incredible potential in Florida and across the country, Gaymer notes. WMU already operates a set of highly respected aviation programs at its College of Aviation in Battle Creek, Michigan. That campus is about to undertake a $20 million expansion to meet the demand for aviation professionals that is expected to skyrocket. With current industry professionals retiring and the FAA predicting that flight travel will double by 2032, the industry is faced with the need for more than a million highly skilled new professionals by 2034. ■

HAITI'S **FUTURE** PRESIDENT?

Economics student aspires to help nation's recovery

Stevens Bonhomme will never forget the feel of the rumbling ground, the sounds of cracking concrete, the crash of buildings collapsing, and then the cries of the wounded.

The time was 4:53 p.m. on Jan. 12, 2010, and Bonhomme, 25, had just returned home from school in his hometown of Port-au-Prince, the capital of Haiti, when a magnitude 7.0 earthquake—one of the most devastating in recorded history—hit the small Caribbean nation.

"Everything changed after that," he says. "Life became very different in a matter of seconds. I lost friends. I lost loved ones."

Already the poorest nation in the Western Hemisphere, the earthquake crippled entire sectors of the economy and destroyed swaths of infrastructure. Nearly 300,000 homes were badly damaged or destroyed, along with many of the most important government buildings, hospitals and roads in the capital. Almost 4,000 schools were damaged or destroyed, amounting to 25 percent of the country's education system.

Death toll estimates varied anywhere from 220,000 to 316,000. More than 1 million people were initially displaced, and hundreds of thousands remain homeless today. Aid agencies estimate it will take decades for Haiti to fully recover.

> "I want to sell another image of my country," he says. "There is so much more to my nation than just the earthquake and poverty. There is such a vibrant culture, full of music and dancing and history. We were the first black nation to gain our independence from a colonial power, so there is a spirit of renewal already within us. I want to see Haiti get back in touch with that."
>
> —Stevens Bonhomme

But Bonhomme, which translates to "good fellow" in English, believes his nation's future is bright. And when Haiti finally emerges from the rubble of the tragedy, he sees himself holding the banner of progress.

He wants to become the Minster of the Economy, and, ultimately, president of Haiti.

"I know it's a lofty goal, but I see this as the way I can best help my nation," he says. "It's more than a dream. It's a desire."

The path to progress—his and Haiti's

He moved to the United States in 2013, following his mother, who settled in Miami, Florida, in 2009. He says he's grateful for his mother's care and encouragement. While in Florida, Bonhomme earned an associate degree from Miami-Dade College, before enrolling in Tuskegee University, where completed a Bachelor of Science degree in economics in 2016.

It was an encounter a year earlier with Tony Dennis, WMU's director of graduate student recruitment and retention, while at a graduate school fair at Tuskegee that convinced Bonhomme to head to Kalamazoo for his doctorate.

"It was the right fit. All the pieces were there," he says. "Western is a very diverse place. There's students here from so many countries, so I feel like I fit into the culture."

He came to WMU with a raft of accolades and awards, including the Distinguished Presidential Scholarship from Tuskegee and President Barack Obama's Silver Presidential Volunteer Service Award. Bonhomme also is a distinguished member of Pi Theta Kappa International Honor Society, and was initiated in 2015 to lifetime membership in AMG National Honor Society, a foreign language honors society. He is fluent in French, English and Creole.

Now a Ph.D. student in WMU's applied economics program, he believes the tenets of community and natural resource development that he is focusing on translate perfectly to the work that needs to be done to enable Haiti to not just get back on its feet, but thrive.

In many ways, Bonhomme is already crafting his platform, albeit through the eyes of an economist.

There is vast natural resource wealth in Haiti—from agricultural land to hydropower to solar energy— that is yet to be tapped, he says. And given the nation's warm climate and rich, diverse culture, there is fertile ground there for investment in tourism. The rebuilding of schools means a more educated population, better able to become contributing, self-sustainable citizens.

Taken together, these elements would not only mean jobs for Haitians and the growth of wealth for individuals and their families, but also an increase in the country's gross domestic product, he says.

"When families do well, the nation will do well as a whole," he says.

Still, he is a realist. There has been progress in emerging from the devastation of seven years ago, but the scale of the destruction was so great that sometimes it's hard to notice, he says.

"We have to find a way to become economically stable," he says. "Without stability, there won't be investment. They go hand-in-hand. Haitians are strong people, smart people. There is a strong will in us."

Bonhomme says he expects to earn his doctorate sometime in 2020, putting him at around 30 years old. After that, he plans to return to Haiti, and begin to put his plans into action.

"The Haitian Constitution states you have to be 35 years old to run for president," he says, smiling. "So I guess I have some time." ■

Supporting the Craft

With Michigan firmly established as one of the top craft beer states in the country, the city of Kalamazoo is gaining recognition as a premier education destination for the growing industry. And with the nation's first higher education program in sustainable brewing in its second year at WMU and Kalamazoo Valley Community College, area businesses are doing their part to ensure future brewers have ample opportunity to hone their craft, right in the local community.

At the forefront is the Kalamazoo Beer Exchange, which recently awarded its annual Beer Week scholarship to a WMU sustainable brewing student for the first time since the degree program's launch in 2015.

Dan King, a junior from Bloomingdale, Michigan, accepted the award in November and was invited to ring the Beer Exchange opening bell amid a crowd of WMU faculty and alumni, friends, and KBE staff and patrons.

Dan King is the first WMU recipient of the brewing scholarship.

"I wasn't expecting a big celebration, but this is really impressive," King said of the event. "It's pretty exciting."

Jim Flora, Kalamazoo Beer Exchange owner and operator, was equally enthused about supporting a local brewer's education.

"It's awesome," he said. "When we found out Western and KVCC were starting a brewing program right here in Kalamazoo, we immediately said, 'That's where we want this scholarship to go.'"

Flora says the fund was established as part of opening festivities for Kalamazoo Beer Week. Ten percent of sales from the first night of the 2016 event, known as "Founding Fathers Night," was designated toward the scholarship. The scholarship is also stoked with funds from Beer Week 2017, a January event.

"It's the perfect way to kick off Beer Week," Flora said, "by celebrating the breweries that really got craft beer going, and then giving back to the brewing industry in Michigan. If the scholarship can help a student with books or pay part of their tuition, that's great."

Hands-on learning with area brewery

Hands-on experience and internships, as well as an opportunity to understand every aspect of the industry, are major components of the WMU and KVCC sustainable brewing degree program. King, who will finish his bachelor's degree in 2018, says his sustainable brewing education is something he's been able to apply on the job immediately.

He is cellarman at Paw Paw Brewing Co., which is co-owned by WMU alumni Ben Fleckenstein and Ryan Sylvester and located just 15 miles from WMU's main campus. In this capacity, King is responsible for taking care of the beer during its fermentation process, and he assists the brewhouse team with various cellaring, brewing and packaging activities.

"Paw Paw is a very interesting brewing company in that a lot of its equipment is repurposed," King said. "It's a little bit more sustainable than buying everything brand new, and it makes brewing more interesting because you have to adjust your processes. If something doesn't work, you build new parts."

King added that although he eventually plans to own and operate his own brewery, he hopes to continue his career with Paw Paw Brewing Co. after graduation. "I really like the people there and I'm learning a lot," he said.

Forging a national rep in sustainable brewing

The WMU and KVCC brewing program was developed by the two schools working in close coordination with the industry. The resulting "two-plus-two" program in sustainable craft brewing offers students the opportunity to earn a certificate or associate degree at KVCC, then move on to a Bachelor of Science degree that marries industry art and science with WMU's national reputation in sustainability.

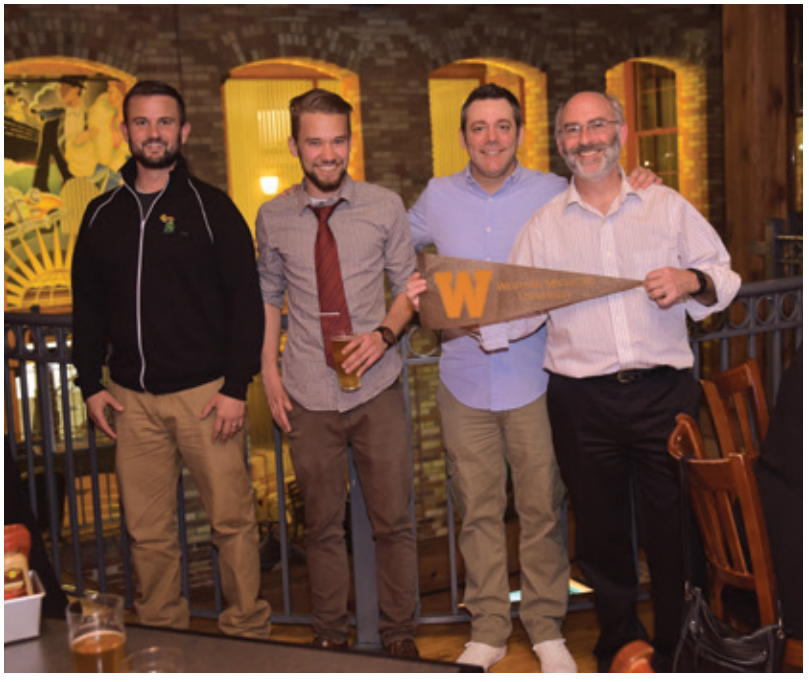
The rigorous science curriculum, which addresses some of the industry's most pressing issues, was developed with input from an external advisory board comprised of a dozen of Michigan's top craft brewers; many of them are in west Michigan, which has one of the country's highest per-capita densities of craft brewers.

Craft brewing in Michigan has a $1 billion economic impact, making the state 10th in the country. Nationally, craft beer accounts for nearly 8 percent of beer sales. And entries into the industry continue, with west Michigan developing a strong reputation for the craft. In 2013, Grand Rapids was named Beer City USA, and Kalamazoo came in second in the international voting. ■

For more information about the WMU and KVCC sustainable brewing degree program, visit wmich.edu/brewing.

"When we found out Western and KVCC were starting a brewing program right here in Kalamazoo, we immediately said, 'That's where we want this scholarship to go.'"

—Jim Flora, Kalamazoo Beer Exchange owner and operator



From left: Paw Paw Brewing Co. co-owner Ben Fleckenstein, scholarship recipient Dan King, Kalamazoo Beer Exhange owner Jim Flora and Dr. Steve Bertman, chemistry professor and key developer of WMU's sustainable brewing degree program

Solar-powered education

While a new 4,000-panel solar garden outside the College of Engineering and Applied Sciences building soaks up sunlight to deliver power for hundreds of utility customers, engineering students are soaking up knowledge about how this technology harnesses the sun's energy to provide electricity.

Designed and installed by engineers and electricians from around the state and first activated in August, the Consumers Energy solar power plant covers 8.5 acres of land immediately west of the college on the University's Parkview Campus.

This photovoltaic array of panels can generate 1 megawatt of electricity, enough to power some 200 homes and businesses. It is Consumers' second large-scale solar project in the state and the first actually located on a college campus. It joins a 3-megawatt solar power plant that opened last April on property owned by Grand Valley State University.

Utility customers who take part in Consumers' program receive solar energy credits. But the solar development isn't just generating clean energy.

Consumers also has provided funding for solar education. As part of a Solar Learning Module, a $120,000 allocation to be meted out in increments over six years will teach WMU, K-12 students, and the local community about solar power systems, with an initial focus on training for emergency first responders in how to safely deal with solar arrays.

Bazuin

The utility company also provided an additional $55,000 to construct two types of residential arrays (pictured) that are nestled within the larger garden. A team of engineering students is monitoring and collecting data on these arrays—one of which has traditional solar panels and the other, a system of solar shingles that would otherwise be installed on a roof.

Dr. Brad Bazuin is the associate professor of electrical and computer engineering heading up the solar garden education project.

"The solar element is the most visible piece, but this is also about energy conversion," Bazuin says. "There are critical elements that have to be designed and built by electrical engineers. The challenge of energy conversion is to draw as much power as possible out of the array and push as much as possible into the building, while using or losing to inefficiency as little as possible."

Applying what they learn in coursework, one group of WMU students will be conducting research on the performance of the two installed residential arrays and energy converters. A second group of students will this semester begin constructing a set of small solar arrays. They can take these hands-on demonstration kits on the road to teach K-12 students about solar power, electricity and energy conservation. ■

Auto lab upgraded to world-class teaching and research facility

WMU's automotive laboratory recently received $400,000 in upgrades, making it one of the premier auto testing labs in southwest Michigan and an even more valuable resource for students, faculty and industry.

"With the significant new investment in the lab, we've greatly expanded its potential," says Dr. Claudia Fajardo, associate professor in mechanical and aerospace engineering who conducts research in the lab.

The lab provides hands-on opportunities for students to work with automobile systems and subsystems, learning how to understand, and improve upon, drive trains, power plants, steering systems, braking mechanisms and safety issues.

"Outside of a sophisticated university setting, the machinery our students use can only be found inside automotive companies themselves," Fajardo says. That equipment includes chassis dynamometers, fuels and lubricant test equipment and now, an engine test cell, equipped with engine dynamometers.

Undergraduate and graduate students interested in automotive-related courses and senior design projects have used the lab but previously were limited by the air flow system. The lab also is used by students for extracurricular projects such as building and maintaining the Society of Automotive Engineers Formula SAE vehicle.

Formula SAE team manager Evan Weese, a senior in mechanical engineering, says the team already has plans to set up its engines in the new test cell. "Utilizing the newly installed instrumentation will allow us to see results quickly and make changes accordingly," he said. "The end product will be a more powerful, drivable and reliable engine."

In addition to academic activities, the lab also supports industry-sponsored research projects. Collaborators in the past have included organizations such as DENSO, Toyota and the U.S. Army's Tank Automotive Research Development and Engineering Center.

"We now offer a modern facility to our research partners," Fajardo says. "We have dedicated space for testing automotive components and systems. Our faculty has great expertise in wide-ranging engineering disciplines and our lab technicians are highly skilled."

In addition to automotive manufacturers and suppliers, other groups that could benefit from testing and research at the lab include engine manufacturers and manufacturers and suppliers of motorcycles and recreational vehicles.

"The lab will soon have powertrain data acquisition and control capabilities similar to those in industry," says Dr. Richard Meyer, assistant professor of mechanical and aerospace engineering. "We'll be able to validate powertrain models as well as explore how to best control them to, for example, reduce fuel usage and emissions."

Fajardo noted that the improved lab offers great promise to advance the transportation industry as WMU collaborates with manufacturers to test and improve current and new technologies. "At the same time we are giving a new generation of engineers the practical experience and exposure to the automotive industry to make them versatile and successful in their fields," she says. ■

Researcher: little connection between violence, video games

Everybody "knows" violent video games desensitize youths to violence, increasing their violent tendencies. But a WMU researcher has found that's really not the case. In fact, three studies he has conducted over the past several years show very little connection between the two.

Dr. Whitney DeCamp, an associate professor of sociology and associate director of the Kercher Center for Social Research, set out to answer a question that has clouded the picture of violent video games for decades. Do violent video games really make people violent, or do violent people just gravitate toward violent video games? His research shows it's the latter.

DeCamp

DeCamp conducted his most recent study with Dr. Christopher Ferguson, professor of psychology at Stetson University in Florida. He also has worked with Rebecca Sevin, a WMU sociology doctoral student, on research examining beneficial effects of video games. Their findings have been published in a number of leading scientific journals and online, including in the *Journal of Youth and Adolescence and Sociological Research Online.*

DeCamp says it seems nearly every highly publicized shooting comes with another slam against violent video games, and those claims are often perpetuated by the news media, politicians and other scholars. But these criticisms are vastly overstated.

"The young males in my research—they were in grades eight and 11—I found that just by itself, even without any controls, violent video games were a poor predictor of violent behavior," DeCamp says. "Even in the best model it only explained about 3 percent of the variation in violent behavior."

Even that 3 percent shrank when DeCamp accounted for other factors. He also found similar results among girls.

"After controlling for other factors," he says, "I found that not only were the effects very weak in comparison with other ones, they were mostly nonsignificant after you included those other controls."

DeCamp found that what was going on in the home was a better predictor of violent behavior.

"The parenting measures in my study were some of the bigger predictors," DeCamp says. "The parental attachment between the youth and the parent, the monitoring activities

of the parents, that is, whether the parents are aware of what the kids are doing, and parental enforcement of the rules were all strong predictors. Seeing or hearing violence in the home and experiencing violence in the home were also powerful predictors. So home life seems to matter more than just playing violent video games."

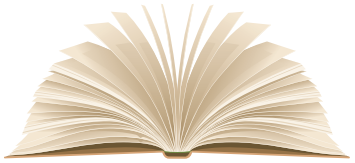
Another parental factor that had a strong influence was whether parents engaged in activities with their children. DeCamp says other studies have shown that growing up in a violent neighborhood and whether your friends engage in violence also are significant factors.

Violent video games often are blamed after highly publicized shootings, both in the U.S. and abroad. Examples include the shootings at Virginia Tech, Sandy Hook and in Munich, Germany.

"We quickly see officials mentioning that these people play violent video games and that might have been an influence," DeCamp says.

"But many times they end up finding out they actually didn't. And in other cases, it lacked the context of how little that might matter. In the Munich shooting, for example, they pointed out that the shooter was a fan of Counter-Strike video games. That's a video franchise that's had about 50 million in sales. So saying that one person who plays those went out and shot someone is problematic, statistically." ■

Paper that purifies



Paper technology with the potential to provide clean drinking water to millions at a cost of just pennies a day has been successfully produced on a pilot scale at WMU and may be on its way to becoming an international tool to prevent disease.

Paper filtering technology developed in research labs at McGill and Carnegie Mellon universities and the University of Virginia was brought to WMU this past fall by Folia Water of Pittsburgh to test the feasibility of scaling the technology to major production.

The technology is based on centuries-old knowledge about the antimicrobial properties of silver, and it involves the production of paper with silver nanoparticles embedded in it. The paper will be packaged in "Safe Water Books," with instructions in the local language. Each page of the Safe Water book is a water filter capable of killing the viruses and bacteria in the water that passes through it.

The trial run in WMU's celebrated paper pilot plants was successful, and the paper rolls produced are being converted into books and being readied for distribution.

"Those rolls are already sold, and we'll be shipping books as soon as they are converted," says Dr. Cantwell Carson, Folia's chief technical officer, who attended the WMU trials. "The WMU paper plant has played a critical role in the development of our company and our technology."

That technology, Cantwell notes, could provide clean and safe water to the 1.8 billion people worldwide whose water is contaminated by fecal coliform bacteria and other diseases. A page from a Folia book can clean up to 100 liters of water at a cost of less than a penny per day with no heat or electricity or need for a pump. The filters are recyclable and biodegradable.

Since 2013, the technology behind the Folia Filters has been tested in South Africa, Ghana, Honduras, Bangladesh, Kenya and Haiti, showing repeatedly that they can clean even the most polluted water and eliminating over 99 percent of bacteria.

Each filter "page," can last for weeks and each "book" could last for about a year.

The technology behind the Folia Filters has been tested around the world, showing repeatedly that they can clean even the most polluted water and eliminate over 99 percent of bacteria.

The Folia Filter technology was originally developed by Dr. Theresa Dankovich during her doctoral research at McGill University. She continued work on the concept during her postdoctoral work at the University of Virginia and Carnegie Mellon. Now one of the co-founders of Folia Water with Cantwell Carson and Dr. Jonathan Levine, she serves as its chairwoman and chief scientist.

Dankovich says she originally set out to develop a product to help clean the environment, but quickly realized how important the tool would be to provide safe water supplies.

WMU Pilot Plants Manager Lon E. Pschigoda says his facility's role in development of the filters was made possible by the caliber of its equipment and the technical expertise of its staff. This fall's trial involved several attempts to embed the silver using different plant techniques.

"By utilizing our pilot paper machine, Folia was able to combine several steps in the production process into one continuous process," Pschigoda says. "The flexibility of the equipment and the ingenuity of the operators at our pilot plant helped this trial become a success." ■

About Folia Water

Based in Pittsburgh, Folia Water's goal is to provide clean water to as many as 1 billion people for less than a penny per day. The company's Safe Water Book is both a water filter and an instruction manual for why clean water is important. The concept was recognized by Time magazine as one of the top 100 inventions of 2015 and won the Design Intelligence Award and Institution of Chemical Engineers (IChemE) Global Award for Water in 2016.

About the WMU Pilot Plants

The WMU Pilot Plants provide workforce and facility solutions for research, product development and education. The plants serve both the public and educational communities within the paper, printing, and allied industries. Through public partnerships, the plants provide a valued workforce supplement as well as open access to pilot plant facilities and personnel.

Classnotes

Send submissions to: teresa.ventimiglia@wmich.edu. Include your name (first, middle, last, maiden), degree(s), year(s) graduated and a daytime phone number by which we can reach you. We will publish photos as space permits.

1961 to 1980

Les Cochran, BS '61, MA '62, has published the first novel in his "Thorn Birds of Detroit" historical fiction series, titled "SAX CLUB: Thorn Birds of Detroit Confront Mafia."

Charles P. Klass, BA '62, has been inducted into the Paper Industry International Hall of Fame.

James S. Brady, BS '66, has been recognized by Continental Who's Who as a Pinnacle Professional in the field of law. He is a managing director for Dykema Law in Grand Rapids, Michigan.

Paula Dunning, BA '67, MA '68 has written an autobiography titled "Shifting Currents." It explores her life farming in the 1970s and '80s.

William Schaefer, BBA '67, was named the 2016 Veteran of the Year by the United Veterans Council of Kent County, Michigan. After nearly 40 years, Schaefer retired from the U.S. Air Force as a chief master sergeant.

Cochran

Brady

Anderson

Stephen J. Hitchcock, BA '69, has been named a 2016 Michigan Super Lawyer in the areas of state, local and municipal law. He is an attorney for Giarmarco, Mullins & Horton PC, in Troy, Michigan.

Janet Irwin, BA '69, MSLS '70, has retired after 46 years as a librarian for Multnomah County in Oregon.

Charles J. Haffey, BBA '70, has retired as senior vice president and chief financial officer of Morpace International in Farmington Hills, Michigan.

Kirk Anderson, BS '73, MA '85, was honored with the 2016 Alex Gordon Award for the USPTA Professional of the Year by the United States Professional Tennis Association.

Steve Petrakis, BS '75, is vice president of sales and marketing for Thermal Care Inc., an auxiliary equipment maker based in Niles, Illinois.

Steve Crass, BSE '77, is executive vice president of sales and marketing for Multi-Pack Solutions in Mt. Prospect, Illinois.

Thomas Cutter, BBA '77, is chief financial officer for Jackson County (Indiana) Bank.

Michael J. Bradford, BS '80, is an industry solution expert in transportation and mobility in the Global Center of Excellence for Dassault Systemes. The software company is headquartered in Velizy, France. Bradford is part of the company's office in Auburn Hills, Michigan.

1981 to 1996

John O'Malley, BBA '81, is the new president of St. Joseph Mercy Livingston Hospital in Howell, Michigan.

David Kowal, BBA '83, MPA '85, is the new city manager of New Buffalo, Michigan.

Daniel J. Kelly, BS '84, has been named a 2016 Michigan Super Lawyer in the areas of state, local and municipal law. He is an attorney for Giarmarco, Mullins & Horton PC in Troy, Michigan.

Jack Giarmo, BBA '85, was named head football coach for Carlson High School in Gibraltar, Michigan.

John Crow, BS '87, is a senior account manager for 180 Solutions LLC in Greenwood, Indiana.

Jeff Mulder, BS '87, is the executive director of Southwest Florida International Airport and Page Field Airport in Fort Myers, Florida.

Christina Triezenberg, BA '87, PhD '14, is an assistant professor of English for Morningside College in Sioux City, Iowa.

Laura Martin-Fedich, BS '88, MPA '99, is the vice president for enrollment for the University of Puget Sound in Tacoma, Washington.

Rodney C. Runyan, BA '88, is professor and director of the School of Family and Consumer Sciences at Texas State University in San Marcos.

Gina Klavon, BS '90, MA '95, is a kindergarten teacher at Rosy Mound Elementary School in Grand Haven, Michigan.

Mark White, BBA '92, is the new president of Shape Corp., a custom auto supplier based in Grand Haven, Michigan.

Brett Karhoff, BBA '93, has been appointed a shareholder for Hungerford Nichols CPAs & Advisors, a firm with locations in Grand Rapids and Greenville, Michigan.

Kathleen Lockman McGookey, MFA '93, PhD '00, is the author of a new book of prose poems titled "Heart in a Jar," published by White Pine Press.

Pamila L. Panozzo-Jones, BS '93, MSW '03, is the director of special education for Haslett (Michigan) Public Schools.

Duane L. Anderson, BA '94, has been appointed chief technology officer for Fuzion, a long-term care insurance management and analytics services provider based in Carmel, Indiana.

Brian Uridge, MPA '94, is the public safety director for St. Joseph, Michigan.

Michael Coleman, BA '95, is the athletic director for Bishop Fenwick High School in Middletown, Ohio.

Beth Ingall, BS '95, MA '08, is a first-grade teacher at Mary A. White Elementary School in Grand Haven, Michigan.

Eric Kennaugh, BA '05, is the lead pastor at Immanuel Lutheran Church in Batavia, Illinois.

Jason D. Sherrill, BBA '96, is the executive director of information technology for Hillsdale (Michigan) College.

1997 to 2005

Colleen Bos, MA '97, is the owner of Madison, Wisconsin-based Bos Meadery, a brewer of the popular Medieval alcoholic drink mead.

Timothy Brent, BM '97, is a visiting assistant professor of popular music studies in the School of Fine and Performing Arts at Rider University in New Jersey.

Ryon List, BA '97, is the dean of instruction for Gogebic Community College in Ironwood, Michigan.

Jeffrey A. Riggs, BBA '97, is an institutional sales and client service officer for Conestoga Capital Advisors LLC in Wayne, Pennsylvania.

Bryan Playford, BA '99, MA '07, is the president of the Jonesville (Michigan) Rotary Club.

Sandra Schroer, BA '99, MA '01, PhD '04, received the William Oxley Thompson Award for Excellence in Teaching from Muskingum University in New Concord, Ohio. She is an associate professor of sociology.

Scott Brade, MA '00, is a new assistant football coach at Grinnell (Iowa) College.

Nolen Akerman, BS '01, MSE '04, PhD '15, has received the 2016 American Society for Engineering Management Best Dissertation Award.

Vincent Hayes, BBA '01, is the director of member development for Family Office Exchange, a wealth management firm in Chicago.

Phi Nguyen, BS '01, a pharmacist, has opened his own pharmacy, Oshtemo (Michigan) Pharmacy & Café in suburban Kalamazoo.

Jennifer M. Black, BA '02, MA '06, was honored by the City of Pittston for her work and leadership on projects to help the Greater Pittston Historical Society preserve the region's history. She is an assistant professor of history and government at Misericordia University in Dallas, Pennsylvania.

Dan Colligan, BA '02, is the assistant principal of Royal Oak (Michigan) Middle School.

Kunal Jaiswal, MBA '02, is vice president of strategic development solutions in clinical supply services for Catalent Pharma Solutions in Somerset, New Jersey.

Stephen Williams, BS '02, is the principal for Olivet (Michigan) Middle School.

Melissa Casas-Koziak, BS '03, is a Spanish teacher for Mona Shores High School in Norton Shores, Michigan.

Dennis Keck, BS '03, is the director of curriculum and special education for Gaylord (Michigan) Community Schools.

Sayera Younus, MA '03, PhD '03, is a general manager of Bangladesh Bank.

David R. Hughes, BA '04, is an associate attorney for HaasCaywood PC in Sturgis, Michigan.

Judd Robertson, BA '04, is a special education teacher for Oxford (Michigan) High School.

Toya L. Williams, MPA '04, is the associate director and compliance officer in the Office of Equal Opportunity and Compliance for the University of Arkansas in Fayetteville.

Erik Carlson, BA '05, is director and student mentor of Holton (Michigan) Virtual Academy.

2006 to 2016

Dustin M. Hoffman, BA '06, PhD '13, won the 2015 Prairie Schooner Prize for his story collection "One-Hundred-Knuckled Fist," published by University of Nebraska Press.

Jeremy Kern, BBA '06, recently received a certified public accountant license and has been promoted to senior accountant for Yeo & Yeo CPAs & Business Consultants in Midland, Michigan.

Sara Buursma, BA '07, has been promoted to director of the member solutions center for Honor Credit Union at its operations center in Berrien Springs, Michigan.

Jeffrey Brom, BBA '08, is vice president of compliance for Roostify, a mortgage software firm headquartered in San Francisco.

Jason Tester, MA '08, is a history teacher for Grand Haven (Michigan) High School.

Colin Weber, BM '08, is the band director for Allegan (Michigan) Public Schools.

Bret Green, BA '09, has entertained a national audience as Preston Wainwright in the CBS television show "The Inspectors."

Green

Christina Martin, MA '09, is a fifth-grade teacher at Shettler Elementary School in Muskegon, Michigan.

Macy Taranko, MA '09, is a fifth-grade teacher at Ealy Elementary School in Whitehall, Michigan.

Carissa Marks, BA '10, wrote a book honored by Bookvana.com. Her "Bus 47" won in Bookvana's "Fiction: Chick Lit/Women's Lit" category. It also was a runner-up in the Shelf Unbound Best Indie Book competition.

Taylor O'Donnell, BM '10, a vocalist, is an artist-in-residence for the 2016-17 season of the Portsmouth (New Hampshire) Symphony Orchestra.

Peter Jenkins, BBA '11, is the director of communications and advancement for Zeeland (Michigan) Christian School.

Sundos Fadel, BS '12, MSM '16, is a physician assistant in vascular surgery for Oaklawn Medical Group in Marshall, Michigan.

Travis Grimsley, BS '12, is the manager of customer service for Duncan Aviation in Battle Creek, Michigan.

Corey Hubbard, BA '12, is an English teacher at the Fourth Street Learning Center in the Middle School at Parkside in Jackson, Michigan.

Rory Closz, BM '13, is a music teacher at Reeths-Puffer Intermediate School in Muskegon, Michigan.

Elizabeth VandenHeede, BA '13, is a communication specialist for Miller-Davis Co., in its Kalamazoo office.

Aaron Taylor, BBA '15, is a staff accountant for Taylor, Plant & Watkins PC in Coldwater, Michigan.

Jack Greve, BA '16, is the executive director and curator of the North Berrien Historical Museum in Coloma, Michigan.

IN MEMORIAM

Doris (Koestner) Reisterer, BS '39, Oct. 13, 2016, Kalamazoo

Adelaide A. (Krieger) Zemmer, BS '40, Oct. 17, 2016, Kalamazoo

Frances J. (Flottorp) Maghielse, BS '42, Sept. 10, 2016, Grand Rapids, MI

Melissa A. (Melin) Bucher, BS '45, Oct. 26, 2016, Interlochen, MI

Barbara A. (Brown) Riegel, BA '70, MLS '72, Oct. 15, 2016, Kalamazoo

Shirley A. (Myers) Ewing, BA '47, Sept. 1, 2016, Brookfield, MO

John M. Phillips, BA '47, Sept. 16, 2016, Lakeland, FL

Harry D. Cairns, BA '48, BS '49, MA '61, Sept. 25, 2016, Marshall, MI

Edward J. Guider, BA '49, Oct. 2, 2016, Kalamazoo

Joyce W. (Westerberg) Parker, BA '49, Oct. 18, 2016, Richland, MI

Celia (Zabbia) Sprague, BA '49, Aug. 25, 2016, Strongsville, OH

Joseph G. Stockdale, BA '49, Oct. 5, 2016, Allegan, MI

Lois M. Williams, BM '49, Sept. 7, 2016, West Chester, PA

Raymond L. Boozer, BA '50, Aug. 31, 2016, Grand Rapids, MI

Carolyn E. (Metzler) George, BM '50, '59, MA '61, Aug. 30, 2016, Phoenix

Marilyn (Clemons) O'Neil, BA '50, Oct. 4, 2016, Petoskey, MI

Jack M. VandePlasse, BS '50, MBA '67, Aug. 30, 2016, Cascade, MI

Charles Vermeulen, BS '50, Nov. 22, 2016, Saugatuck, MI

Wilma J. Bambacht, TC '41, BS '51, MA '63, Sept. 28, 2016, Kalamazoo

Robert J. Brown, BS '51, Oct. 5, 2016, De Pere, WI

Joyce A. (Ayres) Sandelin, BM '52, Nov. 18, 2016, Kalamazoo

William J. Drillock, BS '52, Sept. 21, 2016, Brown City, MI

Charles E. Kolb, MA '52, Oct. 27, 2016, Lake Forest, IL

Norman N. Krieger, BA '52, Sept. 22, 2016, Milford, MI

Donald E. Owen, BA '52, Nov. 1, 2016, Richland, MI

Larry A. Jensen, BS '53, Sept. 27, 2016, Delton, MI

William G. Yena, BS '53, MA '55, Sept. 14, 2016, La Grange Park, IL

Carol A. (Wrench) Healy, SC '54, Nov. 15, 2016, Richland, MI

Jack Hill, BBA '54, Nov. 9, 2016, Cincinnati

Louise Walbridge, BS '54, Jan. 20, 2016, Battle Creek, MI

Lawrence R. Bortolotti, BS '55, Sept. 4, 2016, Carpentersville, IL

Si Miller, BA '55, MA '58, Oct. 24, 2016, Holland, MI

David T. Rose, BS '55, MA '64, Oct. 29, 2016, Dowagiac, MI

Jack N. Boot, BS '56, Oct. 13, 2016, Kalamazoo

Allen W. Krogel, BS '56, Sept. 25, 2016, Bradenton, FL

Dale C. Crawford, BS '57, MA '61, Sept. 30, 2016, Battle Creek, MI

Evelyn M. (Thomas) Fahey, BA '57, MA '61, Sept. 12, 2016, Bolingbrook, IL

Patricia C. (Carpenter) Helme, BA '57, Sept. 16, 2016, Fort Worth, TX

Eugene C. Jakubiak, BA '57, Sept. 3, 2016, Marysville, MI

Betty L. (Glendenning) Smoke, BS '57, MA '62, Aug. 28, 2016, Kalamazoo

Donald G. Gill, BS '58, Oct. 12, 2016, Plano, TX

Clifford G. Johnson, BBA '58, Sept. 24, 2016, Muskegon, MI

Maxine L. (Deyman) Belmonte, BS '59, Oct. 22, 2016, Grand Rapids, MI

Rick O. Geer, BBA '59, Oct. 29, 2016, Kalamazoo

Donald E. Joslin, BA '59, Oct. 7, 2016, Oscoda, MI

Joyce E. (Kasner) Karsko, BA '59, Sept. 23, 2016, Fernandina Beach, FL

John A. Watkinson, BS '59, March 15, 2016, Santa Clarita, CA

James E. Altic, BS '60, Oct. 16, 2016, Sun City, AZ

Harry H. Hively, BBA '60, Sept. 7, 2016, Venice, FL

William D. Collins, BBA '61, Nov. 10, 2016, Kalamazoo

Thomas "Joe" Kidwell, BS '61, Sept. 17, 2016, Clarkston, MI

Arthur C. McKelvey, BA '61, MA '64, Sept. 22, 2016, Hastings, MI

Theodore J. Peters, BS '61, MA '64, Sept. 20, 2016, Eau Claire, WI

Shirley M. (Mason) Bulloch, BS '62, Nov. 16, 2016, Midlothian, VA

Ronald R. Copping, BA '62, MA '76, Oct. 3, 2016, Kalamazoo

Sara C. Gastra, SC '62, Sept. 27, 2016, Sun City, AZ

Sara S. (Paul) Kemper, BS '62, MA '68, Oct. 8, 2016, Kalamazoo

Susan M. (Collier) Maley, BS '62, MA '75, Sept. 4, 2016, Windsor, CO

Jerry W. (Walker) Steen, BA '62, Aug. 21, 2016, Old Greenwich, CT

Minnie (Nelson) Wilcox, BS '62, MA '68, Sept. 16, 2016, Kalamazoo

Jack R. Pierce, MA '63, Sept. 26, 2016, Sherman, TX

Wallace S. Ross, BS '63, Sept. 5, 2016, Muskegon, MI

Roger C. Theder, BS '63, Oct. 1, 2016, Orinda, CA

Michael E. Wooden, BA '63, MA '70, EdD '74, Sept. 4, 2016, Kalamazoo

LeRoy G. Young, BS '63, Oct. 22, 2016, Traverse City, MI

James R. Dalla Vecchia, BS '64, Feb. 23, 2016, Allen Park, MI

James R. DeWorken, BS '64, Sept. 19, 2016, Clinton, NJ

Marilyn J. (Robinson) Littley, BS '64, Oct. 22, 2016, Coldwater, MI

David B. Miller, BS '65, Oct. 26, 2016, Kalamazoo

William H. Outman, BBA '65, Oct. 19, 2016, Kalamazoo

John L. Parrish, MA '65, Oct. 17, 2016, Jackson, MS

Kenneth C. Woodward, MA '65, Oct. 20, 2016, Lansing, MI

Vernon C. Andrews, EDS '66, Oct. 27, 2016, Gladstone, MI

Anthony S. Calderone, BBA '66, Oct. 11, 2016, Battle Creek, MI

Patricia I. Letts, BS '66, Sept. 19, 2016, Ionia, MI

Lynette (Raatz) Pierson, BS '66, Sept. 30, 2016, Manistee, MI

Richard W. Peart, BS '67, Oct. 24, 2016, Kalamazoo

Carole J. (Welchar) Reed, BS '67, Oct. 7, 2016, Eau Claire, MI

Danny L. Speed, BBA '67, Aug. 26, 2016, Beaumont, CA

Mary L. (Swartout) Waldo, MLS '67, Nov. 19, 2016, Kalamazoo

Lawrence D. Cain, MBA '68, Oct. 8, 2016, Sarasota, FL

Marcia A. (Wenger) Huber, BA '68, Aug. 29, 2016, Sturgis, MI

Mae D. (Greene) Kelley, MA '68, Sept. 20, 2016, Waco, TX

Esther Kirk, MA '68, Nov. 1, 2016, Muskegon, MI

William E. Trebilcock, MBA '68, Oct. 6, 2016, West Des Moines, IA

Gregory M. Davis, BBA '69, Oct. 17, 2016, Ann Arbor, MI

Paula K. (Bowles) Little-Hartman, BS '69, Sept. 24, 2016, Linden, MI

Gregory H. Lyzun, BBA '69, Nov. 3, 2016, South Bend, IN

Linda J. Mallinson, BS '69, Oct. 2, 2016, Albany, NY

Michele A. Racine, BBA '69, Oct. 5, 2016, Grand Blanc, MI

Dennis H. Sellers, BS '69, Sept. 5, 2016, Lake Worth, FL

Lucretia A. Smith, BS '69, Oct. 28, 2016, Allegan, MI

Natalie S. Weiler, BA '69, Sept. 26, 2016, Chicago

Gregory C. Likam, BS '70, Oct. 21, 2016, Hollywood, FL

Richard A. Huffman, BS '70, Aug. 29, 2016, Port Huron, MI

Janet S. (Steck) Kennedy, MA '70, Sept. 14, 2016, Niles, MI

Thomas Neuman, BBA '70, Oct. 4, 2016, Watervliet, MI

Ruth G. (Gamber) Stucky, MA '70, Oct. 10, 2016, McPherson, KS

Dale L. VanAntwerp, BS '70, Sept. 26, 2016, Kalamazoo

Cheryl F. (Beach) Apoian, BS '71, Sept. 2, 2016, Detroit

Charlene L. (Dreher) Mell, MLS '71, Oct. 23, 2016, Niles, MI

Patricia D. (Dahstrom) Reider, BA '71, MA '76, Sept. 26, 2016, Muskegon, MI

Stefania C. Rue, BS '71, Sept. 28, 2016, Boilingbrook, IL

Marva J. (Klassen) Tyler, BS '71, Sept. 20, 2016, Norton Shores, MI

Marilyn D. (Bush) Virgin, BM '71, Sept. 15, 2016, Sun City, AZ

Jerald O. Roys, BS '72, MA '79, Nov. 2, 2016, Greenville, MI

Geoffrey S. Hoover, BA '73, BS '97, Oct. 15, 2016, Portage, MI

Daniel L. Paul, EDS '64, EdD '73, Aug. 25, 2016, Chipley, FL

Joanne L. (Bauschke) Pherigo, BM '73, Oct. 27, 2016, Orlando, FL

Judith A. Tysse, BS '73, Sept. 15, 2016, Grand Rapids, MI

Harry C. Wells, BS '73, MA '75, Aug. 26, 2016, Jackson, MI

Reginald Yaple, BS '73, MA '76, Aug. 23, 2016, Pentwater, MI

Carol M. (Sprang) Zomer, BA '73, Sept. 25, 2016, Woodstock, GA

Phyllis G. Sims, BS '74, Oct. 21, 2016, Lansing, MI

William R. Sykes, BA '74, Sept. 5, 2016, Richland, MI

Elaine M. (Hayward) Chew, BSM '75, Oct. 11, 2016, Holland, MI

Lois B. Kuipers, MA '75, Sept. 18, 2016, Grand Rapids, MI

David W. Adams, BBA '77, Oct. 15, 2016, Charlevoix, MI

Lois M. (Morgan) Miles, MOT '77, Nov. 7, 2016, Kalamazoo

Oris M. (Stockwell) Cushman, BS '78, MA '80, Oct. 15, 2016, Nokomis, FL

William C. Dobrowolski, MA '78, Oct. 19, 2016, Centreville, MI

William A. Thomas, BSM '78, Sept. 5, 2016, Ishpeming, MI

Douglas S. Thomsen, BBA '81, Sept. 3, 2016, Kalamazoo

Margaret J. Watson, MLS '81, Sept. 26, 2016, Kalamazoo

David A. Strothmann, BBA '83, Nov. 1, 2016, Spring Lake, MI

Stephen J. Szuminski, BS '84, Sept. 17, 2016, Saline, MI

Joseph J. Brocato, BBA '85, MPA '90, Sept. 22, 2016, Kalamazoo

James D. Pierce, BS '86, Aug. 28, 2016, Nashville, MI

Rhosie Y. (Yee) Koopmans, MS '88, Aug. 31, 2016, San Jose, CA

Cara S. (Valk) Valk-Sill, BS '88, Oct. 8, 2016, Holland, MI

Jane E. (Rogers) Giggy, BSW '91, MSW '93, Oct. 9, 2016, Kalamazoo

William T. Wardwell, MPA '95, Oct. 27, 2016, Holt, MI

Scott M. Hamilton, BS '97, Sept. 5, 2016, Vicksburg, MI

Timothy M. Murphy, MA '97, Sept. 21, 2016, Troy, MI

Kathleen D. Scarry, MSW '00, Oct. 19, 2016, Benton Harbor, MI

Sheri A. (VanDyke) Phelps, BM '01, Aug. 17, 2016, Holland, MI

Michael D. Cesal, MA '07, Oct. 16, 2016, Beaverton, MI

Ryan D. Cramer, BS '07, Sept. 7, 2016, Mattawan, MI

Michael P. Hokenson, BA '15, Oct. 8, 2016, Kalamazoo

Faculty

Ernst A. Breisach, professor emeritus history, Kalamazoo

Mary Cain, professor emerita, education and professional development, Kalamazoo

James Croteau, professor, counselor education and counseling psychology, Kalamazoo

Beatrice P. Hartman, assistant professor emerita, communication, Comstock, Michigan

Arthur T. Howson, assistant professor emeritus, education and professional development, Rockford, MI

Mary Elenor (Mariel) Neu, associate professor emerita, art, Mattawan, MI

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On the path of **public service**

When Rails-to-Trails Conservancy President Keith Laughlin came to WMU in 1969, he was then a kid from Ann Arbor, full of idealism and looking to play his part helping to save the world for future generations.

Sentiments, Laughlin suggests, that were products of the period.

"This was the era of the Civil Rights movement and the opposition to the Vietnam War," he says.

But Laughlin wasn't going through a phase. Since graduating in 1974 with a teaching degree, he has made some form of public service and civic engagement his life's work.

It's been a 40-year journey that has taken him from teaching elementary school in Kalamazoo to Congress, the White House and on to community projects around the country.

Today, as head of Rails-to-Trails Conservancy in Washington, D.C., he is directing an advocacy organization that has helped lead the decades-long community-development movement to turn former railroad lines into biking and walking trails across the United States.

But it was during his WMU years that Laughlin first began putting action behind his inclination to work for public causes greater than himself.

While studying elementary education at WMU, Laughlin became involved in an initiative led by several professors experimenting with ways to optimize teaching and learning in urban settings.

"There was a lot of experimentation going on in the late '60s and early '70s. It was the highlight of my experience at WMU," he recalls. "It was all about improving education in urban neighborhoods to foster smart, successful and socially engaged children for the next generation. It was very idealistic, but we really thought we were going to change the world for the better."

After completing a bachelor's degree, he taught second grade in the Kalamazoo Public Schools. But it was another set of experiences Laughlin had while studying at the University that would lead him to a new career path after a few years in the classroom.

As a student, he was active in the Democratic Party. He became so involved in politics that in 1972, when Sen. George McGovern ran for president, Laughlin took a semester off to coordinate McGovern's campaign on WMU's campus. At the same time, he became acquainted with political science faculty member Howard Wolpe during his bid for a seat in the Michigan Legislature. Though McGovern lost that year, Wolpe won his state House race.

And when Wolpe later ran for Congress, Laughlin left teaching to join the campaign. He ultimately served on the congressman's staff in Washington, D.C. for 14 years.

Laughlin with Wolpe in Kalamazoo in 1978.

"I've always been interested in politics," Laughlin says. "And it was a time to be active. Howard gave me an opportunity to work inside of government. So, it wasn't just politics; it was policy."

In Congress, he helped craft legislation related to energy and the environment, and he also worked his way up to serving as Wolpe's chief of staff. After the congressman's tenure ended in 1992, Laughlin continued working on public policy, this time in the executive branch as associate director for sustainable development for the White House Council on Environmental Quality under Vice President Al Gore.

Laughlin

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So, even though it was an out-the-blue call when Rails-to-Trails Conservancy sought Laughlin out and urged him to apply to lead the organization just as the Clinton-Gore administration was coming to a close in 2000, it seemed like the right next step in his career.

Laughlin says it was an opportunity to move from the abstract realm of national public policy to down-to-earth community development.

The trail development movement, "brings together a really interesting mix of people—business people, environmentalists, the public health community. It is for the young and the old and everyone in between. It's a very broad-based movement," he says.

"It's gratifying to see people making significant investments of time and effort to improve the quality of life in their communities. And when you get out and walk or bike on a trail that you've played a role in helping to create, it's a very tangible sense of accomplishment."

Laughlin meets with President Bill Clinton in the Oval Office.

When Laughlin started at Rails-to-Trails, there were 11,000 miles of trail built across the United States. Today, there are more than 22,000 miles, and tens of millions of people enjoy them in all 50 states.

The organization's mission also has expanded. While it continues to work to transform unused rail lines, an additional focus area is on creating regional trail systems that connect people and destinations.

As part of this work, Laughlin is, of course, deeply familiar with and a frequent user of the nation's trails and trail systems. This past summer, he enjoyed biking the Sleeping Bear Heritage Trail in northern lower Michigan with his 2-year-old and 4-year-old granddaughters.

"We were out on that trail and it drove home the reason we do this," he says. "It's really trying to leave a lasting legacy to the next generation. From a personal standpoint, it feels good to know that my work, in some small way, is helping to leave a better world for these two precious little girls." ■

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Perhaps signifying that a Bronco is never too tired, hundreds of tires created this sculpture unveiled at the Goodyear Cotton Bowl Classic. Goodyear commissioned tire artist Blake McFarland to handcraft team mascots to honor each football team's hard work, determination and grit.